AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

Claims 1-3 (Cancelled)

4. (Currently Amended) ~~The device of claim 3 in which there are~~ An endovascular tissue removal device comprising:

a lumen including a rotatable terminal hub advanceable in vasculature;

at least one fiber extending from the hub for ablating tissue; and

an expandable mechanism including two balloons, one inside and one outside of the distal end of the fiber connected to the fiber for biasing it into position for precisely ablating tissue as the hub rotates.

Claims 5 – 7 (Cancelled)

8. (Currently Amended) ~~The device of claim 1 further including~~ An endovascular tissue removal device comprising:

a lumen including a rotatable terminal hub advanceable in vasculature;

at least one fiber extending from the hub for ablating tissue;

an expandable mechanism connected to the fiber for biasing it into position for

precisely ablating tissue as the hub rotates; and

a tissue trap device surrounding the expandable mechanism.

9. (Cancelled)

10. (Currently Amended) An endovascular tissue removal device comprising:

a lumen including a rotatable terminal hub advanceable in vasculature;

at least one fiber extending from the hub for ablating tissue;

an expandable mechanism connected to the fiber for biasing it into position for precisely ablating tissue as the hub rotates; and

~~The device of claim 1 further including~~ a mirror for redirecting the ablation energy.

11. (Currently Amended) An endovascular tissue removal device comprising:

a lumen including a rotatable terminal hub advanceable in vasculature;

at least one fiber extending from the hub for ablating tissue;

an expandable mechanism connected to the fiber for biasing it into position for precisely ablating tissue as the hub rotates; and

~~The device of claim 1 further including~~ an expandable mechanism inflatable on the ventricular side of the valve for supporting the leaflets of the valve.

12. (Original) The device of claim 11 further including an absorptive surface on the expandable mechanism for absorbing ablation energy.

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Original) An endovascular tissue removal device comprising:

a fiber advanceable within vasculature to ablate tissue;

an outer expandable balloon; and

an inner expandable balloon spaced from the outer expandable balloon forming a space within which the fiber travels to resect tissue.

17. (Original) The endovascular tissue removal device of claim 16 in which the outer expandable balloon is a portion of a tissue trap device.

18. (Original) The endovascular tissue removal device of claim 16 in which the distal end of the fiber is angled.

19. (Original) The endovascular tissue removal device of claim 16 further including an expandable mechanism inflatable on the ventricular side of the valve for supporting the leaflets of the valve.

20. (Original) The endovascular tissue removal device of claim 19 further including an absorptive surface on the expandable mechanism for absorbing ablation energy.

21. (Original) The endovascular tissue removal device of claim 19 in which the expandable mechanism is a balloon.

22. (Cancelled)

23. (Original) An endovascular valve removal device comprising:

a lumen including a rotatable terminal hub advanceable in vasculature;

at least one fiber extending from the hub for ablating valve tissue;

a first expandable mechanism connected to the fiber for biasing it into position for precisely ablating valve tissue as the hub rotates; and

a second expandable mechanism inflatable on the ventricular side of the valve for supporting the valve leaflets during resection.